MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2019/2020

DII5014 – INTRODUCTION TO INVESTMENT

(All Sections/Groups)

24 OCTOBER 2019
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 8 pages with 2 sections.
2. Attempt **ALL** questions in Section A and Section B.
3. Please write all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.
4. The formulae are given in the appendices.

SECTION A: MULTIPLE CHOICE QUESTIONS [30 Marks]

1. Stocks are a(n) _____ investment representing _____ of a business.
   A. direct; ownership
   B. direct; debt
   C. indirect; ownership
   D. indirect; debt

2. Which of the following is an indirect investment?
   A. Stocks in foreign companies.
   B. Savings bonds.
   C. Mutual funds.
   D. Real estate.

3. Debt represents funds loaned in exchange for _____.
   A. dividend income and the repayment of the loan principal
   B. dividend income and an ownership interest in the firm
   C. interest income and a partial ownership interest in the firm
   D. interest income and the repayment of the loan principal

4. The government is generally _____.
   A. not involved in the financial markets
   B. the owner of the financial market
   C. a supplier of funds to the financial market
   D. a demander of funds in the financial market

5. Funds in the financial markets are generally supplied by _____.
   A. Individuals
   B. both individuals and business firms
   C. business firms
   D. the government

6. Which of the following investments represents partial ownership of a corporation?
   A. Bonds.
   B. Mutual funds.
   C. Commercial paper.
   D. Common stock.

7. In selecting investments consistent with your goals, you should consider _____.
   A. rates of return and taxes only
   B. the pre-tax rate of return only
   C. annual dividends and taxes only
   D. risks, returns, and taxes

Continued...

8. Which of the following represent investment goals?

I. Setting aside enough money to meet emergencies and basic needs.
II. Sheltering income from taxes.
III. Increasing current income.
IV. Saving funds for retirement.
A. I and IV only.
B. I, III and IV only.
C. III and IV only.
D. II, III and IV

9. Wages, tips, pension income and alimony are examples of _____.
A. portfolio income
B. active income
C. non-taxable income
D. passive income

10. Monitoring and restructuring your investments is called _____.
A. diversification
B. valuation
C. portfolio management
D. financial planning

11. Stocks and bonds are traded in _____.
A. securities and exchange commissions
B. money markets
C. federal trade commissions
D. capital markets.

12. Which of the following are functions of the secondary market?

I. Provides liquidity for current stockholders.
II. Employs an all-electronic trading platform to execute trades.
III. Provides a market for the dale of new stock by companies that are already public.
IV. Provides continuous pricing of securities.
A. I and II only.
B. II and IV only.
C. I and IV only.
D. I, II and IV only

13. A rights offering is the _____.
A. initial offering of securities to the public
B. offering of new securities to current shareholders on a pro-rata basis
C. sale of newly issued shares of stock to the general public
D. sale of securities directly to a select group of investors

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14. Companies offering their stock to the public for the first time usually seek approval from the _____.
    A. investment bankers
    B. Securities and Exchange Commission
    C. Federal Reserve Bank
    D. prospectors

15. The document that describes the issue and the issuer of a security's management is known as a _____.
    A. balance sheet
    B. 10-K report
    C. Prospectus
    D. red herring

16. Investment bankers who join together to share the financial risk associated with buying an entire issue of new securities and reselling them to the public is called a(n) _____.
    A. selling group
    B. tombstone group
    C. underwriting syndicate
    D. primary market group

17. Which of the following are the characteristics of short selling?

    I. Borrowing shares of stock from a brokerage firm or other investors.
    II. Selling shares of stock, you do not own.
    III. Betting the stock price will increase.
    IV. Limiting losses per share to the price at which the stock was sold.
    A. I and II only.
    B. III and IV only.
    C. I, II and IV only.
    D. I, II, III only.

18. Stocks purchased in the secondary market are purchased _____.
    A. directly from the issuing corporation
    B. from other investors
    C. from small, little-known brokerages
    D. indirectly through financial institutions

19. The over-the-counter (OTC) market is a _____.
    A. centrally located auction market
    B. telecommunications network connecting dealers
    C. market solely for institutional traders
    D. geographically dispersed auction market

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20. The price an individual investor will pay to purchase a stock in the Over The Counter (OTC) market is the _____ price.
    A. spread
    B. ask
    C. bid
    D. broker

21. "The sooner one receives a return on a given investment, the better,". This statement reflects the financial concept known as the _____.
    A. time value of money
    B. total return concept
    C. historical dividend theory
    D. expected yield factor

22. When calculating the present value of either a future single sum or a future annuity, the applicable interest rate is usually called the _____.
    A. yield to maturity
    B. compound interest rate
    C. internal rate of return
    D. discount rate

23. The risk that the rate of return on an investment will be less than expected due to factors that are independent of the investment, such as political, social or economic events, is called _____.
    A. business risk
    B. financial risk
    C. market risk
    D. liquidity risk

24. The risk-free rate is equal to the real rate of return plus _____.
    A. an expected inflation premium
    B. a risk premium
    C. both an inflation and a risk premium
    D. the prevailing prime rate

25. The holding period is a useful way to compare investments because it considers _____.
    A. the time value of money
    B. only capital gains, but not income
    C. both income and capital gains or losses
    D. the relative size of investments being compared

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26. The markets in general are paying a 3% real rate of return. Inflation is expected to be 4%. Romanoff 's stock commands a 7% risk premium. What is the required rate of return on Romanoff's stock?
    A. 14 percent.
    B. 19 percent.
    C. 21 percent.
    D. 23 percent.

27. The required rate of return on the Afterlife & Co. common stock is 13%, the current real rate of return in the market is 3% and the market's risk-free rate of return is 6%. What is the risk premium associated with Afterlife & Co. stock?
    A. 5 percent.
    B. 7 percent.
    C. 9 percent.
    D. 12 percent.

28. Liquidity risk is defined as the risk of _____.
    A. having to trade a security in a broad market
    B. not being able to sell an investment conveniently and at a reasonable price
    C. having inflation erode the purchasing power of your investment
    D. having declining price levels affect the reinvestment rate of your current income stream.

Questions 29 and 30 are based on below statement.

The required return for Alpha stock is 12%, the risk-free rate is 7% and the inflation premium is 4%.

29. Calculate the real rate of return.
    A. 1 percent.
    B. 3 percent.
    C. 5 percent.
    D. 8 percent.

30. Calculate the new required return if the investor expects inflation premium decreased to zero.
    A. 3 percent.
    B. 7 percent.
    C. 9 percent.
    D. 11 percent.

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SECTION B: STRUCTURED QUESTIONS [70 Marks]

QUESTION 1

	Expected Return (%)	
Year	**Stock HPH**	**Stock RTR**
2016	**10**	**11**
2017	**12.5**	**9**
2018	**13**	**11.5**

Riyan is currently analysing his portfolios performance for the past three years, which is a combination of Stock HPH and Stock RTR from two different companies. Data above is the historical data of expected return for both companies. Based on the data given, kindly provide Riyan the answers for the following questions:

a) Calculate the expected portfolio returns for each of the given year, where Stock HPH represents 55% while Stock RTR is 45% of the portfolio mix. (9 marks)

b) Compute the average expected portfolio return over the period. (3.5 marks)

c) Calculate the standard deviation of the expected portfolio return. (5.5 marks)

(Total: 18 marks)

QUESTION 2

a) Given the following information for the year ended 2018.

Item	RM
Sales	100,800
Inventory	18,050
Total Equity	79,100
Fixed Assets	108,000
Interest Expense	15,000
Account Payable	14,125
Long-Term Debt	38,800
Account Receivable	18,100
Total Current Assets	38,200
Total Current Liabilities	28,300

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Calculate:
(i) Liquidity ratios. (4 marks)
(ii) Activity ratios. (7 marks)

b) For each of the following scenario, find how much is each share selling after split and how many shares would the investor own after the split.

(i) Riman currently owns 500 shares, which the price is RM 25 per share. The stock recently underwent a stock split of 3 for 2. (3 marks)
(ii) Moano Berhad declares a 2 for 1 stock split. The stock currently sells for RM4.50 a share. Bruni owned 200 shares of its stock. (3 marks)

(Total: 17 marks)

QUESTION 3

(a) Briefly explain the following:

(i) Premium bond. (2 marks)

(ii) Discount bond. (2 marks)

(iii) Term bond. (2 marks)

(iv) Serial bond. (2 marks)

(b) The following data were collected by Ibrahim:

Bond	Issued Date	Maturity Date	Coupon Rate	Current Price
Ezo Bond	01-01-2009	31-12-2029	9%	RM900
All Moon Bond	31-12-2012	01-01-2025	8%	RM850

(i) Calculate the yield to maturity for both bonds. (9 marks)

(ii) Which bond has better yield to maturity? (0.5 marks)

(Total: 17.5 marks)

QUESTION 4

(a) Briefly explain how mutual funds are organised. (5 marks)

(b) Malacca Tower Fund and White Kancil Fund currently have same NAV (Net Asset Value) per unit of RM1.50 and 1 million of the total unit outstanding in

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the market. However, the total liabilities for Malacca Tower Fund is RM0.55 million and White Kancil Fund is RM800,000.

(i) Which fund has the highest total asset? (Show the calculation for both funds) (6 marks)

(ii) Calculate the total units of the fund if you invest RM3,000 in Malacca Tower Fund with the NAV of RM2.00. (2 marks)

(iii) Calculate the total units of the fund if you invest RM6,000 in White Kancil Fund if the NAV is RM2.00. (2 marks)

(iv) You invested RM6,000 in White Kancil Fund. If the NAV increased by RM0.20 and the purchasing NAV is RM2.00, how much will you earn or loss from this investment? (2.5 marks)

(Total: 17.5 marks)

End of Paper

Appendices

1. Margin $= \frac{V-D}{V}$

2. Return on invested capital from a margin transaction:

$$\frac{\text{Total current income received} - \text{Total interest paid on margin loan} + \text{Capital gain/loss}}{\text{Amount of equity at purchase}}$$

3. Risk-free rate = Real rate of return + Expected inflation premium

4. Required return on investment j = Risk-free rate + Risk premium for investment j

5. HPR $= \frac{\text{Income during period} + \text{Capital gain/loss during period}}{\text{Beginning investment value}}$

6. $FV = PV\,(1 + r)^n$

7. $D_1 = D_0\,(1 + g)^n$

8. Standard Deviation $= \sqrt{\frac{\sum_{t=1}^{n}(ri - \bar{r})^2}{n-1}}$

9. Portfolio return $= \sum_{j=1}^{n}(w_j \times r_j)$

10. $r_j = R_F + [\, b_j \times (r_m - R_F)\,]$

11. Portfolio beta $= \sum_{j=1}^{n}(w_j \times b_j)$

12. EPS $= \frac{\text{Net Income} - \text{Preferred dividends}}{\text{Number of shares of common stock outstanding}}$

13. Dividend yield $= \frac{\text{Anual dividends received per share}}{\text{Current market price of the stock}}$

14. Dividend payout ratio $= \frac{\text{Dividends per share}}{\text{Earnings per share}}$

15. Total returns

    = Current income + Capital gains/losses ± Changes in currency exchange rates

16. Current ratio $= \frac{\text{Current assets}}{\text{Current liabilities}}$

17. Net working capital = Current assets – Current liabilities

18. Accounts receivable turnover = $\frac{\text{Annual sales}}{\text{Accounts receivable}}$

19. Inventory turnover = $\frac{\text{Annual sales}}{\text{Inventory}}$

20. Total asset turnover = $\frac{\text{Annual sales}}{\text{Total assets}}$

21. Debt-equity ratio = $\frac{\text{Long-term debt}}{\text{Stockholders' equity}}$

22. Time interest earned = $\frac{\text{EBIT}}{\text{Interest expenses}}$

23. Net profit margin = $\frac{\text{Net profit after taxes}}{\text{Total revenue}}$

24. ROA = $\frac{\text{Net profit after taxes}}{\text{Total assets}}$

25. ROE = $\frac{\text{Net profit after taxes}}{\text{Stockholders' equity}}$

26. P/E = $\frac{\text{Net price of common stock}}{\text{EPS}}$

27. PEG ratio = $\frac{\text{Stock's P/E ratio}}{\text{3-to-5 year growth rate in earnings}}$

28. Dividend per share = $\frac{\text{Annual dividend paid to common stock}}{\text{Number of common shares outstanding}}$

29. Payout ratio = $\frac{\text{Dividends per share}}{\text{Earnings per share}}$

30. Book value per share = $\frac{\text{Common stockholders' equity}}{\text{Number of common shares outstanding}}$

31. Price-to-book-value = $\frac{\text{Market price of common stock}}{\text{Book value per share}}$

32. Taxable equivalent yield = $\frac{\text{Yield on municipal bond}}{\text{1-Federal tax rate}}$

33. Taxable equivalent yield for both federal and state taxes

$$= \frac{\text{Municipal bond yield}}{1-[\text{Federal tax rate} + \text{state tax rate } (1 - \text{Federal tax rate})]}$$

34. Conversion value = Conversion ratio x Current market price of the stock

35. Conversion equivalent $= \frac{\text{Current market price of the convertible bond}}{\text{Conversion ratio}}$

36. Conversion premium (in RM)

= Current market price of the convertible bond – Conversion value

37. Conversion premium (in %) $= \frac{\text{Conversion premium (in RM)}}{\text{Conversion value}}$

38. Payback period =

$$\frac{\text{Conversion premium (in RM)}}{\text{Annual interest income from the convertible bond} - \text{Annual dividend income from the underlying common stock}}$$

39. Current yield $= \frac{\text{Annual interest income}}{\text{Current market price of the bond}}$

40. Yield to maturity $= \frac{\text{Annual interest} + \frac{\text{Par value} - \text{Market price}}{\text{Number of years to maturity}}}{\frac{\text{Par value} + \text{market price}}{2}}$

41. Yield to call $= \frac{\text{Annual interest} + \frac{\text{Call price} - \text{Market price}}{\text{Number of years to call}}}{\frac{\text{Call price} + \text{market price}}{2}}$

42. Premium (or discount) $= \frac{\text{Share price} - \text{NAV}}{\text{NAV}}$

43. HPR =

$$\frac{(\text{Number of shares at end of period x Ending price}) - (\text{Number of shares at beginning of period x Initial price})}{\text{Number of shares at beginning of period x Initial price}}$$

44. NAV $= \frac{\text{Fund assets} - \text{Fund liabilities}}{\text{Number of units outstanding}}$